The 2006 Water Quality Report

Drinking Water Quality

Since 1990, California water utilities have been providing an annual Water Quality Report to their customers. This year's report covers calendar year 2005 water quality testing and has been prepared in compliance with regulations called for in the 1996 reauthorization of the Safe Drinking Water Act. The reauthorization charged the United States Environmental Protection Agency (USEPA) with updating and strengthening the tap water regulatory program and changed the report's due date to July 1.

USEPA and the California Department of Health Services (CDHS) are the agencies responsible for establishing drinking water quality standards. To ensure that your tap water is safe to drink, the USEPA and CDHS prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDHS regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. The federal Food and Drug Administration (FDA) also sets regulations for bottled water.

The Trabuco Canyon Water District (TCWD) has many procedures in place to safeguard its water supply. The water delivered to your home meets the standards required by the state and federal regulatory agencies. In some cases, TCWD goes beyond what is required to monitor for additional contaminants that have known health risks.

Unregulated contaminant monitoring helps USEPA determine where certain contaminants occur and whether it needs to establish regulations for those contaminants.

If you have any questions about your water, please contact us for answers…

For information about this report, or your water quality in general, please contact Neil McKenna at (949) 858-0277. The Water District Board of Directors meets the third Wednesday of each month at 7:00 p.m. at the District's Administration Building located at 32003 Dove Canyon Drive, Trabuco Canyon, California 92679. The public is encouraged to attend.

For more information about the health effects of the listed contaminants in the following tables, call the U.S. Environmental Protection Agency hotline at (800) 426-4791.

The Trabuco Canyon Water District encourages its customers to visit our website at www.tcwd.ca.gov.

Trabuco Canyon Water District
32003 Dove Canyon Drive
Trabuco Canyon, California 92679

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This report contains important information about your drinking water. Translate it, or speak with someone who understands it.

يحتوي هذا التقرير على معلومات هامة عن نوعية ماء الشرب في منطقتك. يرجى ترجمته، أو ابحث التقرير مع صديق لك يفهم هذه المعلومات جيداً.
Arabic

这份报告中有些重要的信息，讲到关于您所在社区的水的品质，请您找人翻译一下，或者请能看得懂这份报告的朋友给您解释一下。
Chinese

Ce rapport contient des informations importantes sur votre eau potable. Traduisez-le ou parlez en avec quelqu'un qui le comprend bien.
French

Der Bericht enthält wichtige Informationen über die Wasserqualität in Ihrer Umgebung. Der Bericht sollte entweder offiziell uebersetzt werden, oder sprechen Sie mit Freunden oder Bekannten, die gute Englischkenntnisse besitzen
German

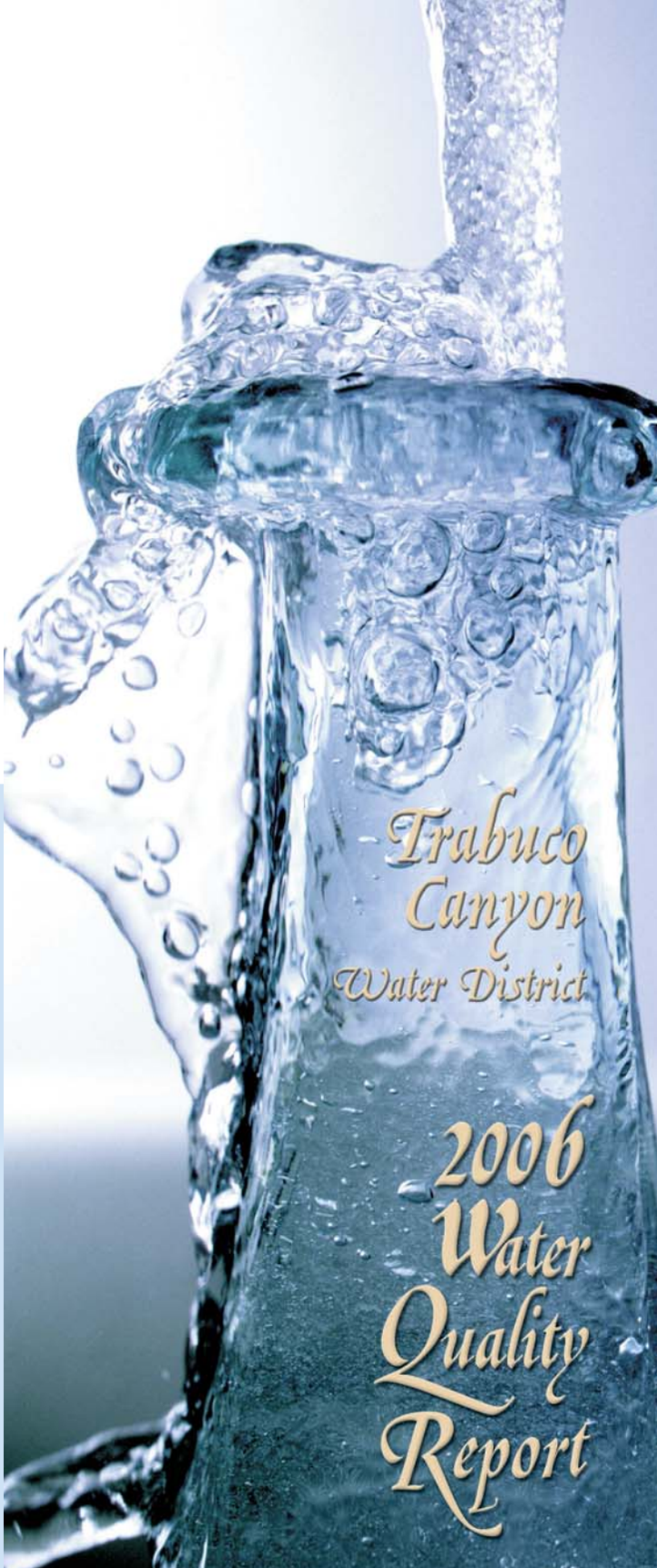
इस रिपोर्ट में पीने के पानी के विषय पर बहुत जरुरी जानकारी दी गई है। कृपया इसका अनुवाद करिये, या किसी जानकार से इस बारे में पूछिये।
Hindi

この資料には、あなたの飲料水についての大切な情報が書かれています。内容をよく理解するために、日本語に翻訳して読むか説明を受けてください。
Japanese

이 보고서에는 귀하가 거주하는 지역의 수질에 관한 중요한 정보가 들어 있습니다. 이 것을 번역하거나 충분히 이해하시는 친구와 상의하십시오.
Korean

Este informe contiene información muy importante sobre su agua potable. Para mas información ó traducción, favor de contactar a Customer Service. Telefono: (949) 858-0277.
Spanish

Bản báo cáo có ghi những chi tiết quan trọng về phẩm chất nước trong cộng đồng quý vị. Hãy nhờ người thông dịch, hoặc hỏi một người bạn biết rõ về vấn đề này.
Vietnamese



What You Need to Know About Your Water, and How it May Affect You

Sources of Supply

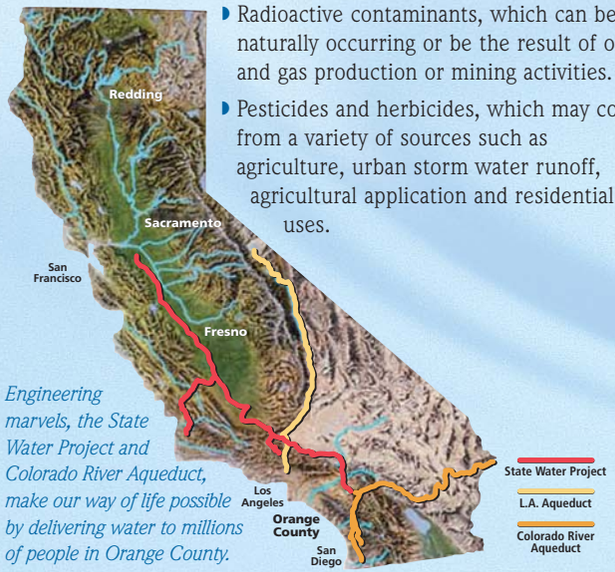
Your drinking water is mostly surface water imported by Metropolitan's imported water source which is Colorado River water and water from the State Water Project from Northern California. In some portions of the District, your drinking water is a blend of mostly groundwater from the Orange County groundwater basin blended with Metropolitan's imported water. This groundwater comes from a natural underground reservoir, managed by the Orange County Water District, stretching from Prado Dam and fanning across the northwest portion of Orange County, and stretching as far south as the El Toro "Y." Local groundwater comes from District operated wells known as the Rose Canyon and Lang Wells.

Basic Information About Drinking Water Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of land or through the layers of the ground it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animal and human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production or mining activities.
- Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, agricultural application and residential uses.



Engineering marvels, the State Water Project and Colorado River Aqueduct, make our way of life possible by delivering water to millions of people in Orange County.

- Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gasoline stations, urban storm water runoff and septic systems.

In order to ensure that tap water is safe to drink, USEPA and the CDHS prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDHS regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at (800) 426-4791.

Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can cause diarrhea, fever, and other gastrointestinal symptoms. The organism comes from animal and/or human wastes and may be in surface water. The Metropolitan Water District of Southern California tested their treated water for *Cryptosporidium* in 2005 but did not detect it. Any *Cryptosporidium* in Metropolitan's source water is eliminated by an effective treatment combination including sedimentation, filtration and disinfection.

The USEPA and the federal Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from USEPA's Safe Drinking Water Hotline at (800) 426-4791 between 9 a.m. and 5 p.m. Eastern Time (6 a.m. to 2 p.m. in California).

Immuno-Compromised People

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised people, such as those with cancer who are undergoing chemotherapy, persons who have had organ transplants, people with HIV/AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

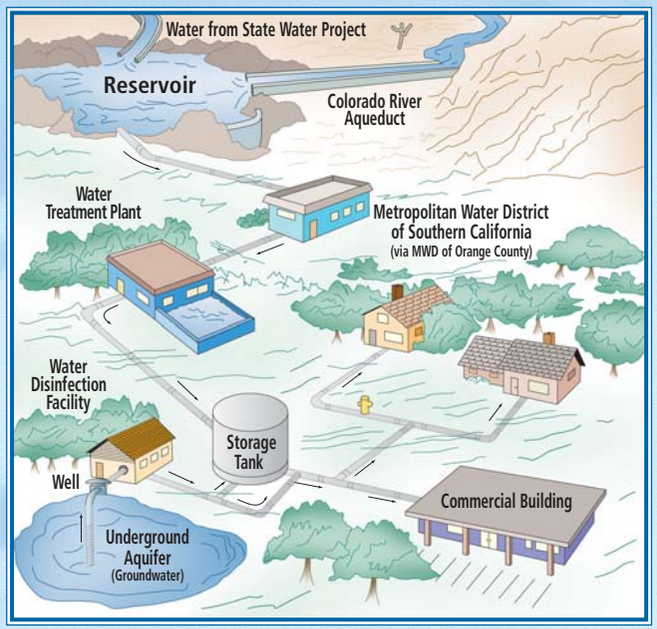
Disinfection and Disinfection Byproducts

Disinfection of drinking water was one of the major public health advances in the 20th century. Disinfection was a major factor in reducing waterborne disease epidemics caused by pathogenic bacteria and viruses, and it remains an essential part of drinking water treatment today.

Chlorine disinfection has almost completely eliminated from our lives the risks of microbial waterborne diseases. Chlorine is added to your drinking water at the source of supply (groundwater well or surface water treatment plant). Enough chlorine is added so that it does not completely dissipate through the distribution system pipes. This "residual" chlorine helps to prevent the growth of bacteria in the pipes that carry drinking water from the source into your home.

However, chlorine can react with naturally-occurring materials in the water to form unintended chemical byproducts, called disinfection byproducts (DBPs), which may pose health risks. A major challenge is how to balance the risks from microbial pathogens and DBPs. It is important to provide protection from these microbial pathogens while simultaneously ensuring decreasing health risks from disinfection byproducts. The Safe Drinking Water Act requires the USEPA to develop rules to achieve these goals.

Trihalomethanes (THMs) and Haloacetic Acids (HAAs) are the most common and most studied DBPs found in drinking water treated with chlorine. In 1979, the USEPA set the maximum amount of total THMs allowed in drinking water at 100 parts per billion as an annual running average. Effective in January 2002, the Stage 1 Disinfectants / Disinfection Byproducts Rule lowered the total THM maximum annual average level to 80 parts per billion and added HAAs to the list of regulated chemicals in drinking water. Your drinking water complies with the Stage 1 Disinfectants / Disinfection Byproducts Rule. In 2003, the USEPA proposed a Stage 2 regulation that will further control allowable levels of DBPs in drinking water without compromising disinfection itself. This regulation was finalized by USEPA in January 2006.



Imported water — from the Colorado River and northern California — travels hundreds of miles, across deserts and mountains, to meet the needs of Orange County. Water is also pumped from local groundwater basins below ground, then treated and sent to homes and businesses.

The Continuing Quality of Your Water is Our Primary Concern

Contaminants Not Detected

The Trabuco Canyon Water District (TCWD) safeguards its water supply and, as in years past, the water delivered to your home meets the standards required by the state and federal regulatory agencies. In some cases, TCWD goes beyond what is required to monitor for additional contaminants that have known health risks. The contaminants listed below, specifically including Chromium and MTBE, were NOT DETECTED in TCWD'S water during 2005.

1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trichlorobenzene
1,2,4-Trimethylbenzene
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
1-Phenylpropane
2,2-Dichloropropane
2-Chlorotoluene
4-Chlorotoluene
Atrazine
Benzene
Beryllium
Bromobenzene
Bromochloromethane
Bromomethane
Cadmium
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloromethane
Chromium
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Cyanide
Diazinon
Dibromomethane
Dimethoate
Dichlorofluoromethane
Ethyl benzene
Fecal Coliform and E.Coli
Isopropylbenzene
Mercury
Methyl-t-butyl ether
Methylene chloride
n-Butylbenzene
Naphthalene
Nickel
Nitrogen Phosphorous Pesticides
Selenium
Simazine
Styrene
Tetrachloroethene
Thallium
Thiobencarb
Toulene
Total Coliform Bacteria
trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Trichlorofluoromethane
Trichlorotrifluoroethane
Vinyl Chloride
Xylenes

Source Water Assessments

Imported (Metropolitan) Water Assessment

In December 2002, Metropolitan Water District of Southern California completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850.

Groundwater Assessment

An assessment of the drinking water sources for Trabuco Canyon Water District was completed in November 2002. The water sources are considered most vulnerable to contaminants associated with historic gas stations, septic systems, agricultural/irrigation wells, above and below ground storage tanks and mining activities. There have been no contaminants detected in TCWD'S water associated with these activities. The only detections of contaminants are associated with naturally occuring salts, naturally occuring radiochemicals, and low level organics. A copy of the complete assessment is available at Trabuco Canyon Water District. You may request that a summary of the assessment be sent to you by contacting Neil McKenna at (949) 858-0277.

Want Additional Information?

There's a wealth of information on the internet about Drinking Water Quality and water issues in general. Some good sites — both local and national — to begin your own investigation are:

Trabuco Canyon Water District
www.tcwd.ca.gov

Municipal Water District of Orange County
www.mwdoc.com

Orange County Water District
www.ocwd.com

Metropolitan Water District of Southern California
www.mwdh2o.com

California Department of Health Services, Division of Drinking Water and Environmental Management
www.dhs.ca.gov/ps/ddwem

U.S. Environmental Protection Agency
www.epa.gov/safewater/

Table Definitions

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (2nd MCL) are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

MRDL (Maximum Residual Disinfectant Level): The level of a disinfectant added for water treatment that may not be exceeded at a consumer's tap.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the USEPA.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Primary Drinking Water Standard or PDWS: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Measurements: Water is sampled and tested throughout the year. Contaminants are measured in parts per million (ppm), parts per billion (ppb), parts per trillion (ppt), and even parts per quadrillion (ppq). If this is difficult to imagine, think about these comparisons:

Parts per million (mg/L):
- 1 second in 12 days
- 1 penny in $10,000
- 1 inch in 16 miles

Parts per billion (µg/L):
- 1 second in 32 years
- 1 penny in $10 million
- 1 inch in 16,000 miles

It is important to note, however, that even a small concentration of certain contaminants can adversely affect a water supply.

The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

2005 Trabuco Canyon Water District Groundwater Quality

Chemical	MCL	PHG (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Contaminant
Inorganic Chemicals							
Fluoride (ppm)	2	1	0.16	ND – 0.23	No	2005	Erosion of Natural Deposits
Nitrate (ppm as Nitrate)	45	45	3.9	ND – 13	No	2005	Fertilizers, Septic Tanks
Nitrate + Nitrite (ppm as N)	10	10	0.9	ND – 2.9	No	2005	Fertilizers, Septic Tanks
Selenium (ppb)	50	(50)	<5	ND – 16	No	2005	Erosion of Natural Deposits
Secondary Standards*							
Chloride (ppm)	500*	n/a	21	11 – 44	No	2005	Erosion of Natural Deposits
Copper (ppm)	1*	0.17	<0.05	ND – 0.06	No	2005	Erosion of Natural Deposits
Iron (ppm)	0.3*	n/a	0.5	ND – 2.9	No	2005	Leaching from Natural Deposits
MBAS- foaming agents (ppb)	500*	n/a	<20	ND – 90	No	2005	Municipal and Industrial Waste Discharge
Specific Conductance (µmho/cm)	1,600*	n/a	610	548 – 660	No	2005	Erosion of Natural Deposits
Sulfate (ppm)	500*	n/a	97	50 – 116	No	2005	Erosion of Natural Deposits
Total Dissolved Solids (ppm)	1,000*	n/a	453	330 – 520	No	2005	Erosion of Natural Deposits
Turbidity (ntu)	5*	n/a	0.22	0.2 – 0.3	No	2005	Erosion of Natural Deposits
Zinc (ppm)	5*	n/a	<0.05	ND – 0.1	No	2005	Erosion of Natural Deposits
Unregulated Contaminants Requiring Monitoring							
Calcium (ppm)	Not Regulated	n/a	71	63 – 77	n/a	2005	Erosion of natural deposits
Magnesium (ppm)	Not Regulated	n/a	18	16 – 18	n/a	2005	Erosion of natural deposits
Potassium (ppm)	Not Regulated	n/a	1.4	1.3 – 1.4	n/a	2005	Erosion of natural deposits
pH (units)	Not Regulated	n/a	7.2	6.6 – 7.7	n/a	2005	Erosion of natural deposits
Sodium (ppm)	Not Regulated	n/a	25	23 – 26	n/a	2005	Erosion of natural deposits
Total Alkalinity (ppm as $CaCO_3$)	Not Regulated	n/a	159	138 – 183	n/a	2005	Erosion of natural deposits
Total Hardness (ppm as $CaCO_3$)	Not Regulated	n/a	252	227 – 268	n/a	2005	Erosion of natural deposits
Vanadium (ppb)	Not Regulated	n/a	<3	ND – 7.0	n/a	2005	Erosion of natural deposits

ppb = parts-per-billion; ppm = parts-per-million; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; ND = not detected; n/a = not applicable;
< = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; PHG = California Public Health Goal
µmho/cm = micromho per centimeter; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Trabuco Canyon Water District Dimension Water Treatment Plant

Chemical	MCL	PHG, or (MCLG)	Average Amount	Range of Detections	MCL Violation?	Most Recent Sampling Date	Typical Source of Contaminant
Radiologicals							
Alpha Radiation (pCi/L)	15	(0)	5.6	4.5 – 6.7	No	2005	Erosion of natural deposits
Uranium (pCi/L)	20	0.43	2.7	ND – 4.7	No	2005	Erosion of natural deposits
Inorganic Chemicals							
Aluminum (ppm)	1 / 0.2*	0.6	0.14	0.14	No	2005	Water treatment chemical
Barium (ppm)	1	2	0.1	0.1	No	2005	Erosion of natural deposits
Fluoride (ppm)	2	1	0.32	0.32	No	2005	Erosion of natural deposits
Nitrate (ppm as N)	10	10	1.3	0.9 – 1.8	No	2005	Fertilizers, Septic Tanks
Secondary Standards*							
Chloride (ppm)	500*	n/a	81	85 – 95	No	2005	Erosion of natural deposits
Iron (ppm)	0.3*	n/a	0.1	0.1 – 0.2	No	2005	Erosion of natural deposits
Specific Conductance (µmho/cm)	1,600*	n/a	1,045	970 – 1,120	No	2005	Erosion of natural deposits
Sulfate (ppm)	500*	n/a	245	243 – 246	No	2005	Erosion of natural deposits
Total Dissolved Solids (ppm)	1,000*	n/a	786	642 – 930	No	2005	Erosion of natural deposits
Turbidity (ntu)	5*	n/a	0.35	0.30 – 0.39	No	2005	Erosion of natural deposits
Unregulated Contaminants Requiring Monitoring							
Calcium (ppm)	Not Regulated	n/a	67	64 – 70	n/a	2005	Erosion of natural deposits
Magnesium (ppm)	Not Regulated	n/a	30	28 – 31	n/a	2005	Erosion of natural deposits
Potassium (ppm)	Not Regulated	n/a	5.1	5.1	n/a	2005	Erosion of natural deposits
pH (units)	Not Regulated	n/a	7.7	7.7	n/a	2005	Erosion of natural deposits
Sodium (ppm)	Not Regulated	n/a	97	97	n/a	2005	Erosion of natural deposits
Total Alkalinity (ppm)	Not Regulated	n/a	115	115	n/a	2005	Erosion of natural deposits
Total Hardness (ppm as $CaCO_3$)	Not Regulated	n/a	291	288 – 293	n/a	2005	Erosion of natural deposits

ppb = parts-per-billion; ppm = parts-per-million; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; ND = not detected; n/a = not applicable;
< = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal; ' PHG = California Public Health Goal;
*Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Turbidity – combined filter effluent	Treatment Technique	Turbidity Measurements	TT Violation?	Most Recent Sampling Date	Typical Source of Contaminant
1) Highest single turbidity measurement	1 NTU	0.39	No	2005	Soil run-off
2) Percentage of samples less than 0.5 NTU	95%	100%	No	2005	Soil run-off

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms.
Low turbidity in Trabuco Canyon Water District's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique."
A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.

2005 Trabuco Canyon Water District Distribution System Water Quality

Disinfection Byproducts	MCL (MRDL/MRDLG)	Average Amount	Range of Detections	MCL Violation?	Typical Source of Contaminant
Total Trihalomethanes (ppb)	80	26	ND – 66	No	Byproducts of chlorine disinfection
Haloacetic Acids (ppb)	60	13	ND – 50	No	Byproducts of chlorine disinfection
Chlorine Residual (ppm)	(4 / 4)	1	0.1 – 2.0	No	Disinfectant added for treatment
Aesthetic Quality					
Turbidity (ntu)	5*	0.18	0.12 – 0.35	No	Erosion of natural deposits

Twelve locations in the distribution system are tested quarterly for total trihalomethanes and haloacetic acids; sixteen locations are tested monthly for pH, color, odor and turbidity.
Color and odor were not detected in any distribution system samples in 2005. MRDL = Maximum Residual Disinfectant Level; ND = not detected;
MRDLG = Maximum Residual Disinfectant Level Goal; ntu = nephelometric turbidity units; *Contaminant is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color).

Bacterial Quality	MCL	MCLG	Highest Monthly Percent Positives	MCL Violation?	Typical Source of Contaminant
Total Coliform Bacteria	1	0	1	No	Naturally present in the environment

No more than 1 of the monthly samples may be positive for total coliform bacteria.
The occurance of 2 consecutive total coliform positive samples, one of which contains fecal coliform/E.coli, constitutes an acute MCL violation.

Lead and Copper Action Levels at Residential Taps

	Action Level (AL)	Health Goal	90th Percentile Value	Sites Exceeding AL / Number of Sites	AL Violation?	Typical Source of Contaminant
Lead (ppb)	15	2	ND<5	0 / 35	No	Corrosion of household plumbing
Copper (ppm)	1.3	0.17	0.11	0 / 35	No	Corrosion of household plumbing

Every three years, at least 30 residences are tested for lead and copper at-the-tap. The most recent set of samples was collected in 2003.
Lead was detected in one home, but did not exceed the action level. Copper was detected in 32 samples, but none exceeded the action level.
The regulatory action level is the concentration which, if exceeded in more than ten percent of the homes tested, triggers treatment or other requirements that a water system must follow.
Trabuco Canyon Water District complied with the lead and copper action levels.

2005 Metropolitan Water District of Southern California Treated Surface Water

Chemical	PHG, or MCL	Average (MCLG)	Range of Amount	MCL Detections	Violation?	Typical Source of Contaminant
Radiologicals – Tested in 2005						
Alpha Radiation (pCi/L)	15	(0)	<3	ND – 3.2	No	Decay of man-made or natural deposits
Beta Radiation (pCi/L)	50	(0)	4.8	ND – 6.4	No	Erosion of natural deposits
Inorganic Chemicals – Tested in 2005						
Aluminum (ppm)	1 / 0.2*	0.6	<0.05	ND – 0.1	No	Erosion of natural deposits
Barium (ppm)	1	2	<0.1	ND – 0.1	No	Erosion of natural deposits
Fluoride (ppm)	2	1	0.19	0.15 – 0.22	No	Erosion of natural deposits
Nitrate as NO_3 (ppm)	45	45	2.3	ND – 3.6	No	Agriculture runoff and sewage
Nitrate and Nitrite as N (ppm)	10	10	0.5	ND – 0.8	No	Agriculture runoff and sewage
Secondary Standards* – Tested in 2005						
Chloride (ppm)	500*	n/a	77	67 – 85	No	Runoff or leaching from natural deposits
Color (color units)	15*	n/a	2	1 – 2	No	Runoff or leaching from natural deposits
Corrosivity (LSI)	non-corrosive	n/a	0.27	0.15 – 0.39	No	Elemental balance in water
Odor (odor units)	3*	n/a	2	2	No	Naturally-occurring organic materials
Specific Conductance (µmho/cm)	1,600*	n/a	792	734 – 871	No	Substances that form ions in water
Sulfate (ppm)	500*	n/a	171	151- 202	No	Runoff or leaching of natural deposits
Total Dissolved Solids (ppm)	1,000*	n/a	468	426 – 528	No	Runoff or leaching of natural deposits
Turbidity (NTU)	5*	n/a	0.06	0.05 – 0.07	No	Runoff or leaching of natural deposits
Unregulated Chemicals – Tested in 2005						
Alkalinity (ppm)	Not Regulated	n/a	91	83 – 101	n/a	Runoff or leaching from natural deposits
Boron (ppb)	Not Regulated	n/a	160	130 – 200	n/a	Runoff or leaching from natural deposits
Calcium (ppm)	Not Regulated	n/a	45	39 – 53	n/a	Runoff or leaching from natural deposits
Hardness, total (ppm)	Not Regulated	n/a	197	176 – 225	n/a	Runoff or leaching of natural deposits
Hardness, total (grains/gal)	Not Regulated	n/a	12	10 – 13	n/a	Runoff or leaching of natural deposits
Magnesium (ppm)	Not Regulated	n/a	21	19 – 23	n/a	Runoff or leaching from natural deposits
N-Nitrosodimethylamine (ppt)	Not Regulated	n/a	<2	ND – 2.2	n/a	By-product of drinking water chlorination
pH (pH units)	Not Regulated	n/a	8.2	8.1 – 8.2	n/a	Hydrogen ion concentration
Potassium (ppm)	Not Regulated	n/a	3.8	3.5 – 4.1	n/a	Runoff or leaching from natural deposits
Sodium (ppm)	Not Regulated	n/a	82	73 – 90	n/a	Runoff or leaching from natural deposits
Vanadium (ppb)	Not Regulated	n/a	3.3	3.2 – 3.4	n/a	Runoff or leaching from natural deposits

ppb = parts-per-billion; ppm = parts-per-million; ppt = parts-per-trillion; pCi/L = picoCuries per liter; ntu = nephelometric turbidity units; µmho/cm = micromhos per centimeter;
ND = not detected; < = average is less than the detection limit for reporting purposes; MCL = Maximum Contaminant Level; (MCLG) = federal MCL Goal;
PHG = California Public Health Goal; n/a = not applicable; LSI = Langelier Saturation Index; *Contaminant is regulated by a secondary standard.

Turbidity – combined filter effluent	Treatment Technique	Turbidity Measurements	TT Violation?	Typical Source of Contaminant
1) Highest single turbidity measurement	1 NTU	0.06	No	Soil run-off
2) Percentage of samples less than 0.3 NTU	95%	100%	No	Soil run-off

Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms.
Low turbidity in Metropolitan's treated water is a good indicator of effective filtration. Filtration is called a "treatment technique."
A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.